

**Air Pollution Control District  
Jefferson County, Ky  
17 November 2000**

**TITLE V PERMIT SUMMARY**

**Company:** Kentucky Truck Plant Ford Motor Company

**Plant Location:** 3001 Chamberlain Lane

**Date App. Received:** 22 April 1997

**Date Admin. Complete:** 5 June 1997

**Date of Draft Permit:** 21 May 2000

**Date of Proposed Permit:** 25 June 2000

**District Engineer:** Darrell T. Poff

**Permit No.:** 150-97-TV

**Plant ID:** 0073

**SIC Code:** 3711

**NAICS:** 336112

**AFS:** 00073

**Introduction:**

This permit will be issued pursuant to: (1) Regulation 2.16, (2) Title 40 of the Code of Federal Regulations Part 70, and (3) Title V of the Clean Air Act Amendments of 1990. Its purpose is to identify and consolidate existing District and Federal air requirements and to provide methods of determining continued compliance with these requirements.

Jefferson County is classified as an attainment area for sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), particulate matter (PM), particulate matter less than 10 microns (PM<sub>10</sub>), and lead (Pb); unclassifiable for particulate matter less than 2.5 microns (PM<sub>2.5</sub>); and is a moderate non-attainment area for ozone (O<sub>3</sub>).

**Application Type/Permit Activity:**

- ☒ Initial Issuance
- ☐ Permit Revision
  - ☐ Administrative
  - ☐ Minor
  - ☐ Significant
- ☐ Permit Renewal

**Compliance Summary:**

- ☐ Compliance certification signed
- ☐ Compliance schedule included
- ☐ Source is out of compliance

## I. Source Description

- Class I Area Impacts:** This source is not located in or near a Class I area.
- Product Description:** The source manufactures sport utility vehicles (SUV) and trucks (Super Duty).
- Overall Process Description:** Vehicle bodies are assembled and primed the body shop. A variety of sealers are applied to the bodies which are then painted. Wax is applied to certain body parts. Next, windshields and back lights are installed, then a structural adhesive is used to bond glass to the bodies.
- Site Determination:** There are no other facilities that are contiguous or adjacent and under common control.
- Emission Unit Summary:** The following table includes emission rates used to derive the Part 70 Emission Caps; however, these individual rates have been superseded by the Part 70 Emission Caps. Note the source is still required to demonstrate ongoing compliance with *all* underlying regulatory requirements.

Emission Unit Descriptions					
Emission Unit ID	Description	VOC		PM (TPY)	NO <sub>x</sub> (TPY)
		Daily (lbs)	TPY		
U-1	SUV E-Coat	12.0	1.3	0.02	0.0
U-2	SUV Sealer	83.0	8.9	0.00	0.0
U-3	SUV Guidecoat	168.0	18.1	0.05	0.0
U-4/5	SUV Topcoat/Final Repair	485.0	52.3	0.71	0.0
U-7	SUV Black-out, Wax, and Sound Deadner	141.0	15.2	1.06	0.0
U-8	SUV Cleaning Solvent	464.0	50.0	0.00	0.0
U-10	SUV Glass Installation	121.0	13.0	0.00	0.0
U-11	Storage Tanks	42.0	4.5	0.00	0.0
U-12	Plant-wide Product Fueling and Plant Vehicle Refueling	18.0	1.9	0.00	0.0
U-16	Super Duty E-Coat	19.0	2.1	0.10	0.0
U-17	Super Duty Sealer	466.0	50.2	0.00	0.0
U-18	Super Duty Guidecoat	2,816.0	303.4	7.08	0.0
U-19/23	Super Duty Topcoat/Final Repair	7,364.0	799.5	25.16	0.0
U-20	Super Duty Black-out and Wax	132.0	14.2	1.00	0.0

Emission Unit Descriptions					
Emission Unit ID	Description	VOC		PM (TPY)	NO <sub>x</sub> (TPY)
		Daily (lbs)	TPY		
U-22	Super Duty Cleaning Solvent	2,042.0	220.0	0.00	0.0
U-24	Super Duty Glass Installation	241.0	26.0	0.00	0.0
N/A	Paint Kitchens (2)	52.0	5.6	0.20	0.0
N/A	Plant-wide natural gas usage	112.0	12.0	4.60	125.0
<b>Part 70 Emission Caps:</b>		<b>14,778.0</b>	<b>1,598.2</b>	<b>39.98</b>	<b>125.0</b>

**6. Fugitive Sources:** None of significance, i.e., none subject to a NESHAP, etc.

**7. Title V Major Source Status by Pollutant:**

Pollutant	Actual Emissions (tpy) 1998 Data	Major Source Status (based on PTE)
CO	Negligible	No
NO <sub>x</sub>	62.41	Yes
SO <sub>2</sub>	0.45	No
PM	31.8	No
VOCs	880.66	Yes
Single HAP (> 1 tpy)		
Ethyl Benzene	17.43	Yes
Hexane	3.48	No
Methanol	24.36	Yes
Methyl Ethyl Ketone	10.19	Yes
Methyl Isobutyl Ketone	32.23	Yes
Naphthalene	1.33	No
Toluene	8.58	Yes
Trimethylamine	4.98	No
Xylenes	88.91	Yes
Glycol Ethers	217.28	Yes
<b>Total HAPs (VOC and Non-VOC)</b>	490.8	Yes

**8. MACT Standards:** This company may be subject to the Federal Automotive Maximum Achievable Control Technology (MACT) Rule when promulgated by EPA in the future.

**9. Applicable Requirements:**

☐ PSD      ☒ NSPS      ☒ SIP      ☐ NSR      ☐ NESHAPS  
☒ District-Origin      ☐ MACT      ☒ Other

## II. Regulatory Analysis

1. **Emission and Operating Caps:** The source is subject to Part 70 emission caps (see Emission Unit summary).
2. **Compliance Status:** The source signed and submitted a Title V compliance certification in its permit application.
3. **Operational Flexibility:** The source did not request to operate under alternative operating scenarios in its Title V Permit Application.
4. **Testing Requirements:** None at this time.
5. **Monitoring, Record Keeping and Reporting Requirements:** The source is required to monitor, maintain records of, and report on various operating parameters to demonstrate ongoing compliance with all applicable requirements. This record keeping is in conformance with the U. S. EPA/Protocol for Automobile and Light-Duty Truck Operations. Compliance reporting is required semi-annually, except where underlying applicable regulations or permit conditions require more frequent reporting.

Monitoring, record keeping, and reporting are required for the following:

- A. **Opacity:** Certain Emission Units require a Permit Condition to monitor compliance with the opacity standard. The frequency of monitoring was chosen on the basis that these Units do not have a record of non-compliance and do not operate close to the standard. The source is required to initiate corrective action within 8 hours if visible emissions are observed during the survey. A Method 9 test is required if visible emissions persist. The periodic surveys coupled with Method 9 tests, if necessary, should be adequate monitoring to reasonably assure the source meets the opacity standards.
- B. **VOC:** Periodic monitoring for the emission units with VOC emissions, consists of monthly record keeping for determination of total emissions. Daily pours of paint and dilution solvent are recorded. This data is combined with monthly tank level readings. Daily paint usage is determined by prorating monthly usage based on daily surface area coated. This shall be done for each calendar month and, a cumulative annual total calculated.

Note, the Plant-wide Product *Fueling* section of Emission Unit U-12 implements “Stage II-like” monitoring, record keeping, and reporting requirements, as Regulation 6.40, which addresses vehicle *refueling*, is not applicable (the new vehicles have not previously been fueled).

C. PM: Periodic monitoring for the emission units with particulate emissions consists of monthly record keeping, with some data derived from daily records for paint usage. This includes:

1. Hours of operation for each facility;
2. Quantity of trucks through process; and
3. Calculations of PM emissions from each facility based on the recorded parameters.

This shall be done for each calendar month and, a cumulative annual total calculated.

Monitoring, record keeping, and reporting are not required for Regulation 7.08, section 3.1.1, for scuff booths, as the likelihood of visible emissions from these is nil.

6. **Off-Permit Documents:** This source is subject to Regulation 1.18, Rule Effectiveness for certain VOC control devices. Compliance with this regulation which includes their submitted Rule Effectiveness Measures (an Off-permit Document) is achieved by the compliance monitoring requirement specified in the Title V permit.

The District considers an “off-permit document” as a document on which a source’s compliance with given regulation(s) is contingent or which contains regulatory requirement(s), but is only referenced in a source’s Title V Operating Permit. The designation “off-permit document” shall be made at the District’s discretion, and may include, but not be limited to, documents such as Regulation 1.05 VOC compliance plans, PMPs, MOCS; or other documents which are too voluminous to be included in a source’s Title V Operating Permit, as determined by the District.

### III. Other Requirements

1. **Temporary Facilities:** The source did not request to operate any temporary facilities.
2. **Short Term Activities:** The source did not report any short term activities.
3. **Compliance Schedule/Progress Reports:** The source has certified compliance with all applicable requirements; therefore, no compliance schedule or progress reports are necessary.
4. **Emissions Trading:** The source has stated that production at the KTP facility is to be increased from 1260 jobs per day (JPD) and 348,000 units/year to 1495 JPD and 376,200 units/year for Super Duty (formerly Super Duty) operations and from 240 JPD and 66,000 units/year to 345 JPD and 85,500 units/year for SUV operations. This capacity increase will result in additional emissions of 125.2 TPY. No facility changes at KTP are necessary to support this increase. To provide necessary emission reduction credits, spray booth controls will be installed at the LAP facility. These controls for VOCs will be carbon adsorption with thermal oxidation. The letter of 6 August 1998 from the source describes how this will

provide VOC emission reductions of 185.4 TPY for emissions trading. The owner will agree to reduce these emissions at LAP from 2017.9 TPY to 1892.7 TPY. This creates an emissions credit of 125.2 TPY which will be transferred to KTP. The allowable VOC emission for KTP will thereby be increased to 1598.2 TPY. The owner will donate the remaining emission reduction credit balance of 60.2 TPY to Jefferson County's emission bank.

Note the production caps (vehicles/day limits) have been eliminated with the implementation of the Part 70 Emission Caps; therefore, the terms and conditions from previously issued operating permits are not incorporated in the Title V Permit. The Title V permit replaces all previously issued District operating permits and is consistent with the permit revision procedures for the state's NSR program.

- 5. Acid Rain Requirements:** The source is not subject to the Acid Rain Program.
- 6. Stratospheric Ozone Protection Requirements:** Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any source that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. This source does not manufacture, sell, or distribute any of the listed chemicals. The source's only use of a listed chemical is that of HCFC 134a, used as a refrigerant in vehicle air conditioning systems, and is stored in a pressurized vessel.
- 7. Prevention of Accidental Releases 112(r):** The source does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR 68 Subpart F and Regulation 5.15, Chemical Accident Prevention Provisions, in a quantity in excess of the corresponding specified threshold amount.
- 8. Insignificant Activities:** Backup generators for emergency power, using only natural gas/propane, are listed as insignificant as the generators historical has been very low, less than 500 hrs/year. These are not normally used unless the normal supply of electrical power is interrupted. Natural gas usage is accounted for in the Part 70 Emission Caps Section.

The following activities, as referenced in the source's Title V Permit Application, have been determined by the District to be insignificant.

Insignificant Activities		
Description	Quantity	Basis
Internal combustion engines fixed or mobile	Various	Regulation 2.02, Section 2.2
Presses extruding metal/mineral/wood	Various	Regulation 2.02, Section 2.3.1
Brazing, soldering or welding equipment	Various	Regulation 2.02, Section 2.3.4

Insignificant Activities		
Description	Quantity	Basis
Emergency relief vents or ventilating systems (not otherwise regulated)	Various	Regulation 2.02, Section 2.3.10
Lab venting and exhaust systems (non radioactive materials)	2	Regulation 2.02, Section 2.3.11
Ventilation systems - bakeries & restaurants	Various	Regulation 2.02, Section 2.3.12
Blast cleaning - abrasives in water	Various	Regulation 2.02, Section 2.3.13
Washing or drying fabricated metal or glass; non VOC use; no oil or solid fuel	Various	Regulation 2.02, Section 2.3.15
Residential/domestic equipment	Various	Exempt
Indoor pm collectors venting indoors; non 5.11, 5.12, or 5.14 related material	Various	Regulation 2.02, Section 2.3.21
Portable diesel or gasoline storage tanks	Various	Regulation 2.02, Section 2.3.23
Diesel fuel storage tanks (emergency use only)	2	Regulation 2.02, Section 2.3.25
Closed pressure storage vessels	2	Regulation 2.02, Section 2.3.26
Portable tote tanks for raw material shipment of solvent - based coatings	Various	Tote tanks are kept closed when not in use. Emission from tanks are negligible, and are accounted for by process material balance.
Backup generators for emergency power. (natural gas/propane; < 500 hrs/year)	Various	Generators normal use is very low. Natural gas usage accounted for under Part 70 Emission Cap.
Wastewater Pretreatment system.	1	Emissions insignificant
Frame cutoff	Various	Particulates from frame cutoff negligible. Natural gas usage accounted for with Emission Unit 00.
Fluid Fill (hydraulic fluids, oil, anti-freeze) and Lubricating operations.	Various	Emissions insignificant due to low vapor pressure of materials used.

Insignificant Activities		
Description	Quantity	Basis
Miscellaneous maintenance procedures including lubrication, grinding, cleaning, woodworking, etc.	Various	Negligible emissions
Direct heat exchangers < 10 MM Btu/ hr	Various	Regulation 2.02, Section 2.1.1 Natural gas usage accounted for under Part 70 Emission Cap.
Unpaved Roads and lots, including temporary construction access roads.	Various	Emission sources are transitory. Best management practices used to limit dust during construction.

- A. Insignificant Activities are only those activities or processes falling into the general categories defined in Regulation 2.02, Section 2, and not associated with a specific operation or process for which there is a specific regulation. Equipment associated with a specific operation or process (Emission Unit) shall be listed with the specific process even though there may be no applicable requirements. Information contained in the permit and permit summary shall clearly indicate that those items identified with negligible emissions have no applicable requirements.
- B. Activities identified in Regulation 2.02, Section 2, may not require a permit and may be insignificant with regard to application disclosure requirements but may still have generally applicable requirements that continue to apply to the source and must be included in the Title V permit.
- i. No facility, having been designated as an insignificant activity, shall be exempt from any generally applicable requirement which shall include a < 20% opacity limit for facilities not otherwise regulated.
  - ii. No periodic monitoring shall be required for facilities designated as insignificant activities.